

GPS Users Must Ensure Receiver Compliance

PETERSON AIR FORCE BASE, Colo. (AFP) — The Global Positioning System, made famous by Desert Storm, is an integral navigational tool for both military and civilian users because of its accuracy and flexibility. However, there are two upcoming events that may affect civil GPS users and government users of commercially procured receivers — the GPS End of Week rollover and Year 2000 issues.

The GPS EOW rollover happens every 20 years. Because GPS system time, counted in weeks, started counting Jan. 6, 1980, at midnight between Aug. 21 and 22, the GPS week will roll over from week 1023 to 0000. This is significant because it is the first EOW rollover since the GPS constellation was established and could be interpreted as an invalid date in GPS receivers that were not designed to meet GPS specifications.

The GPS Y2K issue stems from the fact that many computer programs use a two-digit date field and assume that the year is 19XX. When 2000 occurs within the program, the two-digit date becomes "00" and could be interpreted as an invalid date. As with the EOW rollover, if receivers were manufactured according to GPS specifications, then this issue will not be a problem.

The Department of Defense is the service provider for GPS with direct control of the overall GPS service. The DoD's GPS Joint Program Office has verified that all generations of GPS satellites and ground support systems are Y2K- and EOW-compliant. This means that the GPS navigation signal will continue to be delivered during and after each of these events.

The U.S. Air Force GPS Joint Program Office has conducted extensive testing of military receivers. The results of these tests may be viewed at the GPS JPO Y2K Web site (<http://www.laafb.af.mil/SMC/CZ/homepage/y2000/index.html>). Military users of commercial GPS receivers can also check the GPS JPO Y2K Web site or contact receiver manufacturers to verify receiver EOW and Y2K compliance.

End-user systems are the receivers and applications that use GPS and have no controlling entity. It is these users that must verify that their receivers and applications, like electronic charting systems, will also work properly throughout these events. There are several initiatives in place to inform and educate civil users regarding GPS Y2K and EOW issues; however, it remains the responsibility of users to determine if their particular receivers and applications are Y2K- and EOW-compliant.

The Department of Transportation is the primary interface for all civil GPS matters and created the Civil GPS Service Interface Committee to meet this obligation. Since 1996, this committee has been actively informing the public about GPS Y2K and EOW issues. Relevant information, such as a list of receiver manufacturers and points of contact for the public, is posted on the Coast Guard Navigation Center's Web site at <http://www.navcen.uscg.mil>.

Editor's Note: This information is in the public domain at <http://www.af.mil/news/> on the World Wide Web.